UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,240	03/30/2004	Erik de la Iglesia	6897P001	8139

8791   7590   03/17/2008
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ART UNIT	PAPER NUMBER
2144	

MAIL DATE	DELIVERY MODE
03/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/815,240	DE LA IGLESIA ET AL.
	Examiner	Art Unit
	PELING A. SHAW	2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 January 2008</u>.

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Priority

1.   This application has claimed priority from provisional application 60528643 filed on

12/10/2003. The filing date is 03/30/2004.

Claim Rejections - 35 USC § 101 Utility

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

Claims 1-11 and 17-20 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

  a. Claim 1 recites an apparatus comprising the limitations of "network interface

      module", "object assembly module", "object classification module", "object store

      module" and "user interface". These limitation as recited does not provide a clue to a

      hardware embodiment. As applicant has further stated that the claimed invention

      could be implemented as computer software may be resident in one or more computer

      readable media as per paragraph 13 of applicant's specification; and implemented as

      software or hardware modules as per paragraph 38 of applicant's specification. It

      seems that the apparatus per claim 1 language is software per se. It thus lacks the

      necessary physical articles or objects necessary for it to be a machine or a

      manufacture within the meaning of 35 USC 101, and it's clearly not a series of steps

      or acts so as to be a process or combination of two or more substances so as to be a

      composition of matter, it fails to fall within a statutory category. Since the claim is

      not limited to embodiments eligible for patent protection, it is being rejected as non-

statutory as directed to a form of energy rather than a patent-eligible machine, manufacture, process or composition of matter. Claim 1 and its dependent claims 2-11 are thus rejected. For the purpose of applying art, claim 1 is read to consist of at least a hardware element, e.g. a processor and a memory device containing said modules when executed with the processor will perform functions of …

b. Claim 17 recites a limitation of machine-readable medium that is reviewed in light of paragraph 13 as per applicant's specification. It seems to relate to a computer readable (storage) media, e.g. hard drives, CD-ROMs, etc. However, it is not definitive clear that that would be applicant's scope of claim 17. Further evidences in paragraphs 11-12 suggest that "signal" could be used to carry algorithm (software program). It is thus not clear that if the limitation of machine-readable medium per claim 17 language is readily limited to a computer readable storage media as per paragraph 13 of applicant's specification. It thus may lack the necessary physical articles or objects necessary for it to be a machine or a manufacture within the meaning of 35 USC 101, and it's clearly not a series of steps or acts so as to be a process or combination of two or more substances so as to be a composition of matter, it fails to fall within a statutory category. Since the claim is not limited to embodiments eligible for patent protection, it is being rejected as non-statutory as directed to a form of energy rather than a patent-eligible machine, manufacture, process or composition of matter. Claim 17 and its dependent claims 18-20 are thus rejected. For the purpose of applying art, claim 17 is read as "A computer readable storage media having instruction that, when executed by a processor …"

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section
122(b), by another filed in the United States before the invention by the applicant for patent
or (2) a patent granted on an application for patent by another filed in the United States
before the invention by the applicant for patent, except that an international application filed
under the treaty defined in section 351(a) shall have the effects for purposes of this
subsection of an application filed in the United States only if the international application
designated the United States and was published under Article 21(2) of such treaty in the
English language.

Claims 1-7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Rowley et al.

(US 7277957 B2), hereinafter referred as Rowley.

a.   Regarding claim 1, Rowley disclosed an apparatus (Fig. 1 and Fig. 2) comprising: a

network interface module to connect the apparatus to a network (column 3, lines 28-

33; Ethernet card as a network tap device); a packet capture module to intercept

packets being transmitted on the network (column 3, lines 33-35: a packet capture

engine); an object assembly module to reconstruct objects being transmitted on the

network from the intercepted packets (column 4, lines 29-34: data from the selected

packets may be reconstructed into data files and script files used to display web pages

and other content); an object classification module to determine a type of content of

the reconstructed objects (column 4, lines 63-65: determine the type of packets;

column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g.

HTML, Java Script and Active Server Pages); an object store module to store the

objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and

added to the protocol sorted list until the last packet has been retrieved); and a user interface to enable a user to search objects stored in the object store module (column 7, line 66-column 8, line 1: web browser or display program capable display text, graphic and other visual information on a computer monitor).

b. Regarding claim 2, Rowley disclosed the apparatus of claim 1, wherein the object assembly module comprises a reassembler to assemble the intercepted packets into flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

c. Regarding claim 3, Rowley disclosed the apparatus of claim 2, wherein the object assembly module further comprises a protocol demultiplexer to sort the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

d. Regarding claim 4, Rowley disclosed the apparatus of claim 3, wherein the object assembly module further comprises a protocol classifier to extract the objects from the sorted assembled flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

e. Regarding claim 5, Rowley disclosed the apparatus of claim 1, wherein the object classification module determines whether objects are stored in the object store or discarded based on one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).

f. Regarding claim 6, Rowley disclosed the apparatus of claim 5, wherein the capture rules are user-configurable through the user interface (column 1, line 66-column 2, line 9: selecting a portion of the packets captured by a sniffer during a giving time interval; column 3, lines 43-47: selecting captured data during a specified time interval).

g. Regarding claim 7, Rowley disclosed the apparatus of claim 1, wherein the object classification module determines a location that each object is stored in the object store based on the type of content of each object (column 6, lines 38-48: directory structure based on image file type; column 6, lines 49-65: directory structure for graphics files, text files, audio files and video files).

h. Regarding claim 9, Rowley disclosed the apparatus of claim 1, wherein the user interface comprises a graphical user interface (column 7, line 66-column 8, line 1: web browser or display program capable display text, graphic and other visual information on a computer monitor).

Rowley disclosed all limitations of claims 1-7 and 9. Claims 1-7 and 9 are rejected under 35 U.S.C. 102(e).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject matter
> sought to be patented and the prior art are such that the subject matter as a whole would have
> been obvious at the time the invention was made to a person having ordinary skill in the art
> to which said subject matter pertains. Patentability shall not be negatived by the manner in
> which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley and further in

view of Saulpaugh et al. (US 7072967 B1), hereinafter referred as Saulpaugh.

   a. Rowley shows claim 1 as above. Rowley does not show (claim 8) wherein the object

       classification module determines the type of content of each object using a signature

       of each object.

   b. Saulpaugh shows (claim 8) wherein the object classification module determines the

       type of content of each object using a signature of each object (column 82, lines 28-

       52: an object signature may be included to identify the object's class) in an analogous

       art for the purpose of efficient construction of message endpoints.

   c. It would have been obvious to a person of ordinary skill in the art at the time of the

       invention was made to modify Rowley's functions of reconstructing network

       communications with Saulpaugh's functions of identifying object class with an object

       signature.

   d. The modification would have been obvious because one of ordinary skill in the art

       would have been motivated to identify an object class with an object signature as per

Saulpaugh's teaching in the art of communication reconstruction as per Rowley

(column 1, lines 54-65) and Saulpaugh (column 27, lines 10-29)'s teaching.

Together Rowley and Saulpaugh disclosed all limitations of claim 8. Claim 8 is rejected

under 35 U.S.C. 103(a).

5.   Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley and

further in view of Barnett et al. (US 7290048 B1), hereinafter referred as Barnett.

   a. Rowley shows claim 1 as above. Rowley does not show (claim 10) wherein the object

      store module comprises a content store to store the objects and a tag store to index the

      objects stored in the object store. However, Rowley does show identifying protocol

      and collecting packets into a protocol sorted list; selecting, reconstructing and

      displaying data information, e.g. web pages, from a protocol session.

   b. Barnett shows (claim 10) wherein the object store module comprises a content store

      to store the objects and a tag store to index the objects stored in the object store

      (column 10, lines 52-61: tags and other columns support transaction recognition,

      pointer to original sources of data for traceability; column 22, lines 18-37: tags

      interpreted are time, data, file name, line numbers, graph object types, source,

      destination and tool tip information) in an analogous art for the purpose of data

      collection, data analysis, and model generation for the performance analysis of

      enterprise applications.

   c. It would have been obvious to a person of ordinary skill in the art at the time of the

      invention was made to modify Rowley's functions of reconstructing network

communications with Barnett's functions of using tags in support of performance

analysis.

d. The modification would have been obvious because one of ordinary skill in the art

would have been motivated to tag and identify data as per Barnett's teaching in

support the data collection and reconstruct as per Rowley (column 1, lines 54-65) and

Barnett (column 7, lines 35-45)'s teaching.

e. Regarding claim 11, Barnett shows wherein the content store comprises a canonical

storage, and the tag store comprises a database (column 12, lines 4-12: canonical

form for abstract module, sources supply lines information form text file, binary file

or database; column 13, lines 26-48: data consists of network traces consisting of

arrays mutated into hash tables to be addresses by column header vs. row and column

locations).

Together Rowley and Barnett disclosed all limitations of claims 10-11. Claims 10-11 are

rejected under 35 U.S.C. 103(a).

6.   Claims 12-14 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Rowley in view of Barnett.

a. Rowley shows (claim 12) an method comprising: intercepting data being transmitted

on a network (column 3, lines 33-35: a packet capture engine); reconstructing objects

being transmitted on the network from the intercepted data (column 4, lines 29-34:

data from the selected packets may be reconstructed into data files and script files

used to display web pages and other content); classifying the reconstructed objects by

content type (column 4, lines 63-65: determine the type of packets; column 6, lines 6-

11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script
and Active Server Pages); and storing the classified objects (column 4, lines 9-12:
packets are sequentially read, decoded, checked and added to the protocol sorted list
until the last packet has been retrieved). Rowley does not show (claim 12) indexing
the stored objects to enable searching of the stored objects. However, Rowley does
show identifying protocol and collecting packets into a protocol sorted list; selecting,
reconstructing and displaying data information, e.g. web pages, from a protocol
session.

b.   Barnett shows (claim 12) indexing the stored objects to enable searching of the stored
objects (column 10, lines 52-61: tags and other columns support transaction
recognition, pointer to original sources of data for traceability; column 22, lines 18-
37: tags interpreted are time, data, file name, line numbers, graph object types,
source, destination and tool tip information) in an analogous art for the purpose of
data collection, data analysis, and model generation for the performance analysis of
enterprise applications.

c.   It would have been obvious to a person of ordinary skill in the art at the time of the
invention was made to modify Rowley's functions of reconstructing network
communications with Barnett's functions of using tags in support of performance
analysis.

d.   The modification would have been obvious because one of ordinary skill in the art
would have been motivated to tag and identify data as per Barnett's teaching in

support the data collection and reconstruct as per Rowley (column 1, lines 54-65) and

Barnett (column 7, lines 35-45)'s teaching.

e. Regarding claim 13, Rowley shows wherein reconstructing the objects comprises:

sorting the intercepted data into packets; assembling the packets into flows (column

4, lines 9-12: packets are sequentially read, decoded, checked and added to the

protocol sorted list until the last packet has been retrieved; column 6, lines 59-65:

local cache holding word processing documents, PDF files, audio files and video

files); and sorting the assembled flows by protocol (column 4, lines 9-12: packets are

sequentially read, decoded, checked and added to the protocol sorted list until the last

packet has been retrieved ; column 6, lines 59-65: local cache holding word

processing documents, PDF files, audio files and video files).

f. Regarding claim 14, Rowley shows further comprising determining whether each

object is to be stored based on a set of one or more capture rules (column 3, lines 62-

67: packet not needed for the subsequent reconstruction of the network

communication session).

g. Regarding claim 17, Rowley shows an machine-readable medium having stored

thereon data representing instructions (Fig. 1 and Fig. 2) that, when executed by a

processor, cause the processor to perform operations comprising: intercepting data

being transmitted on a network (column 3, lines 33-35: a packet capture engine);

reconstructing objects being transmitted on the network from the intercepted data

(column 4, lines 29-34: data from the selected packets may be reconstructed into data

files and script files used to display web pages and other content); classifying the

reconstructed objects by content type (column 4, lines 63-65: determine the type of

packets; column 6, lines 6-11: packet indicates a script file type to be displayed as

page, e.g. HTML, Java Script and Active Server Pages); and storing the classified

objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and

added to the protocol sorted list until the last packet has been retrieved). Barnett

shows indexing the stored objects to enable searching of the stored objects (column

10, lines 52-61: tags and other columns support transaction recognition, pointer to

original sources of data for traceability; column 22, lines 18-37: tags interpreted are

time, data, file name, line numbers, graph object types, source, destination and tool

tip information).

h.   Regarding claim 18, Rowley shows wherein reconstructing the objects comprises:

sorting the intercepted data into packets; assembling the packets into flows (column

4, lines 9-12: packets are sequentially read, decoded, checked and added to the

protocol sorted list until the last packet has been retrieved; column 6, lines 59-65:

local cache holding word processing documents, PDF files, audio files and video

files); and sorting the assembled flows by protocol (column 4, lines 9-12: packets are

sequentially read, decoded, checked and added to the protocol sorted list until the last

packet has been retrieved ; column 6, lines 59-65: local cache holding word

processing documents, PDF files, audio files and video files).

i.   Regarding claim 19, Rowley shows wherein the instructions further cause the

processor to determine whether each object is to be stored based on a set of one or

more capture rules (column 3, lines 62-67: packet not needed for the subsequent

reconstruction of the network communication session).

Together Rowley and Barnett disclosed all limitations of claims 12-14 and 17-19. Claims 12-

14 and 17-19 are rejected under 35 U.S.C. 103(a).

7.   Claims 15-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Rowley, Barnett and further in view of Saulpaugh.

   a. Rowley and Barnett show claims 12 and 17 as above. Neither Rowley nor Barnett

      shows (claim 15) further comprising receiving a query over the stored objects and

      (claim 16) further comprising searching the indexed objects, and retrieving objects

      matching the query. However, as per claim 10 rejection Barnett does show that user

      selects based on tags.

   b. Saulpaugh shows (column 27, lines 10-29) query for a message response; (column 41,

      line 60-column 42, lines 10) database query based upon name or strings; and (column

      48, lines 33-52) query results cache in an analogous art for the purpose of efficient

      construction of message endpoints.

   c. It would have been obvious to a person of ordinary skill in the art at the time of the

      invention was made to modify Rowley's functions of reconstructing network

      communications with Barnett's functions of using tags in support of performance

      analysis and Saulpaugh's functions of message query based on name or string.

   d. The modification would have been obvious because one of ordinary skill in the art

      would have been motivated to tag and identify data as per Barnett's teaching and have

      data selection or query based on name or string as per Saulpaugh's teaching in

support the data collection and reconstruct as per Rowley (column 1, lines 54-65) and

Barnett (column 7, lines 35-45)'s teaching.

e. Regarding claim 20, Saulpaugh shows wherein the instructions further cause the

processor to receive a query over the stored objects, search the indexed objects in

response to the query, and retrieve objects matching the query (column 27, lines 10-

29: query for a message response; column 41, line 60-column 42, lines 10: database

query based upon name or strings; column 48, lines 33-52: query results cache).

Together Rowley, Barnett and Saulpaugh disclosed all limitations of claims 15-16 and 20.

Claims 15-16 and 20 are rejected under 35 U.S.C. 103(a).

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Refer to the enclosed PTO-892 for details.

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The

examiner can normally be reached on M-F 8:00 - 4:00.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

        Information regarding the statu9s of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

                                        /Peling A Shaw/
                                        Examiner, Art Unit 2144